

Work Order ID 162754-1

162754

Page 1

Monday, June 12, 2017 11:47:22 AM

Item ID: D2230-3

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Item Name: Mounting Lug

Stop *NS2*

Start Date: 6/12/2017 Start Qty: 220.00

220

Cust Item ID:

Required Date: 7/3/2017 Req'd Qty: 220.00

220

Customer:

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date: JUN 12 2017

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2230

Rev G

110

Outsource process - Machining

0.00

110

HAAS CNC VERTICAL MACHINING #1

Outsource5

Memo

73,920.00

Outsource process - Machining

Issue P/O to Metec : 36680
Machine as per dwg
C of C is required

220 JUN 13 2017

DAS
13
9-89

120

Receive & Inspect for Damage & Mat'l Certs

0.00

120

Packaging

Memo

4.40

Packaging

Ensure C of C is attach

160x SP17-6-26

130

QC6- All purchased or subcontracted products

0.00

130

QC

Memo

4.40

Quality Control

160

DAS
38
9-89

JUN 27 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 162754

Monday, June 12, 2017 11:47:22 AM

162754

Page 2

Item ID: D2230-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Mounting Lug
Start Date: 6/12/2017 Start Qty: 220.00 ***220*** Cust Item ID:
Required Date: 7/3/2017 Req'd Qty: 220.00 ***220*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 <i>Memo</i>	0.00 4.40							
150 *150* QC Quality Control	QC7-Inspect Chemical Conversion Coat <i>Memo</i>	0.00 2.20							
160 *160* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum <i>Memo</i> START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____	0.00 1.85							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 162754

162754

Page 3

Monday, June 12, 2017 11:47:22 AM

Item ID: D2230-3 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Mounting Lug
Start Date: 6/12/2017 Start Qty: 220.00 *220* Cust Item ID:
Required Date: 7/3/2017 Req'd Qty: 220.00 *220* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 2.20				160			DAS 38 9-89 JUN 27 2017
180 *180* Packaging Packaging	Identify as per dwg & Stock Location: <u>Steel</u> Memo	0.00 2.20				160	DAS 6 9-89		
190 *190* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 22.00							17/7/12 JG U.P.O.F. 11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Monday, June 12, 2017 11:47:25 AM

Page 1

Work Order ID: 162754

162754

Parent Item: D2230-3

D2230-3

Parent Item Name: Mounting Lug

Start Date: 6/12/2017

Required Date: 7/3/2017

Start Qty: 220.00

Required Qty: 220.00

Comments: IPP D00.05.18 Added inspection level 8, and removed P/O for powder coatEC
IPP REV :E NEW FOLIO # 10-05-25 JLM VERIFIED BY:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2230-3P		Purchased	No			110	Each	0.0000	1	220			
D2230-3P									**				
Lug													
D2423		Manufactured	No			110	f	304.4802	0.0683	15.81684			
D2423									**				
Lug Extrusion													

SP/60
50 17-6-26

DAS
13
9-89

JUN 13 2017

Location

Loc Qty

Loc Code

Metec

304.4801737

115229

64

127892

83.2745647

148833

157.205609

W

DQA: _____ Date: _____

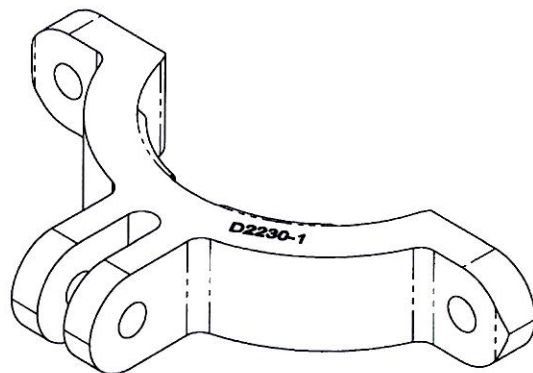


WORK ORDER NON-CONFORMANCE / UPDATE

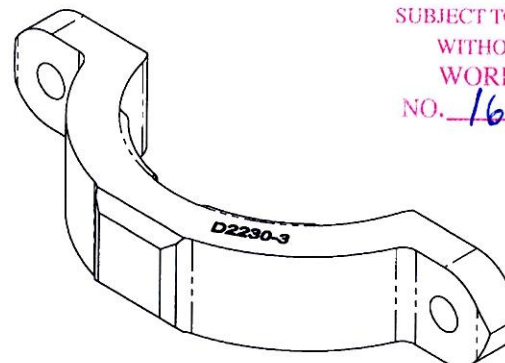
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					



D2230-1 MOUNTING LUG



D2230-3 MOUNTING LUG

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 162754115

1706-12

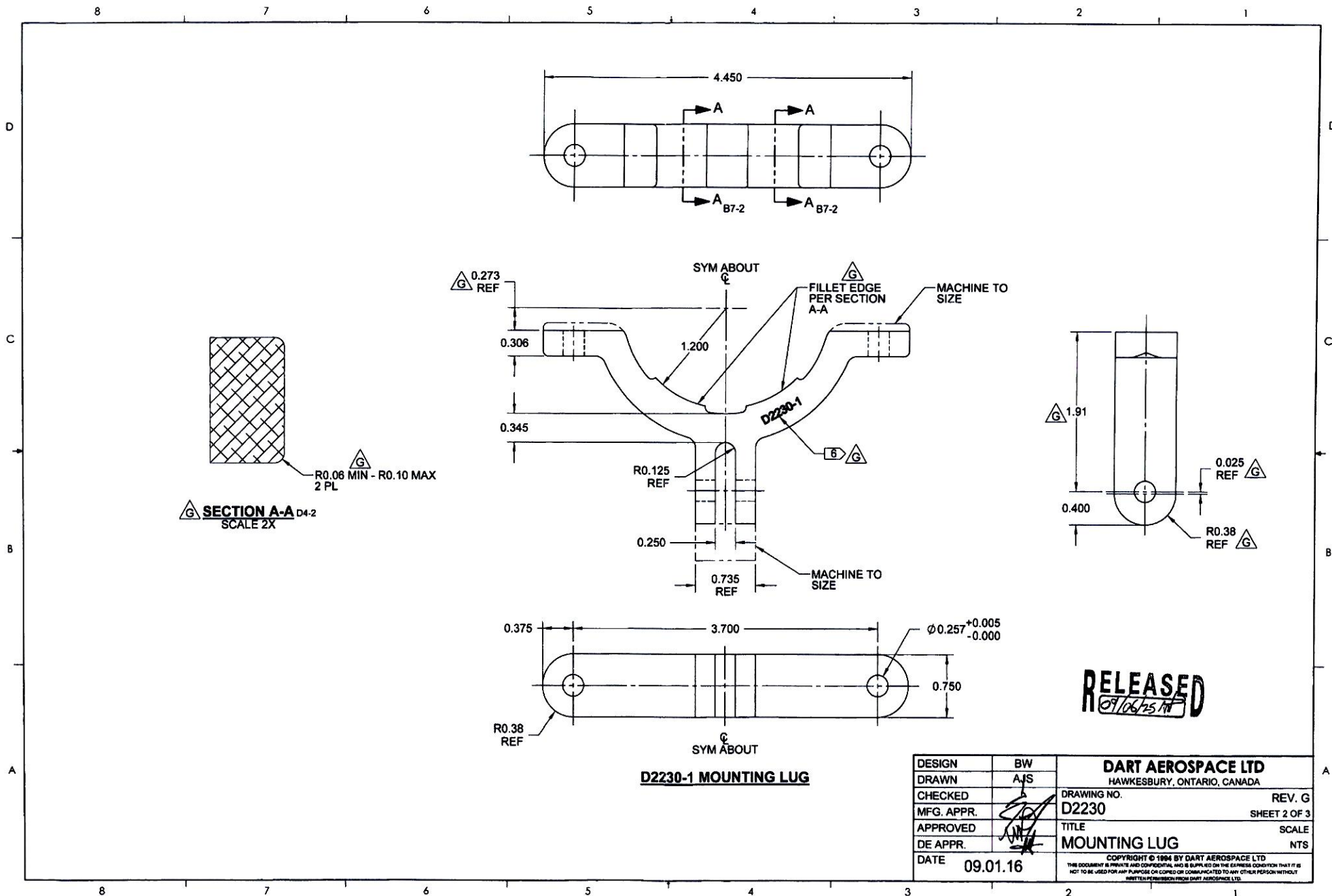
RELEASED
016625MP

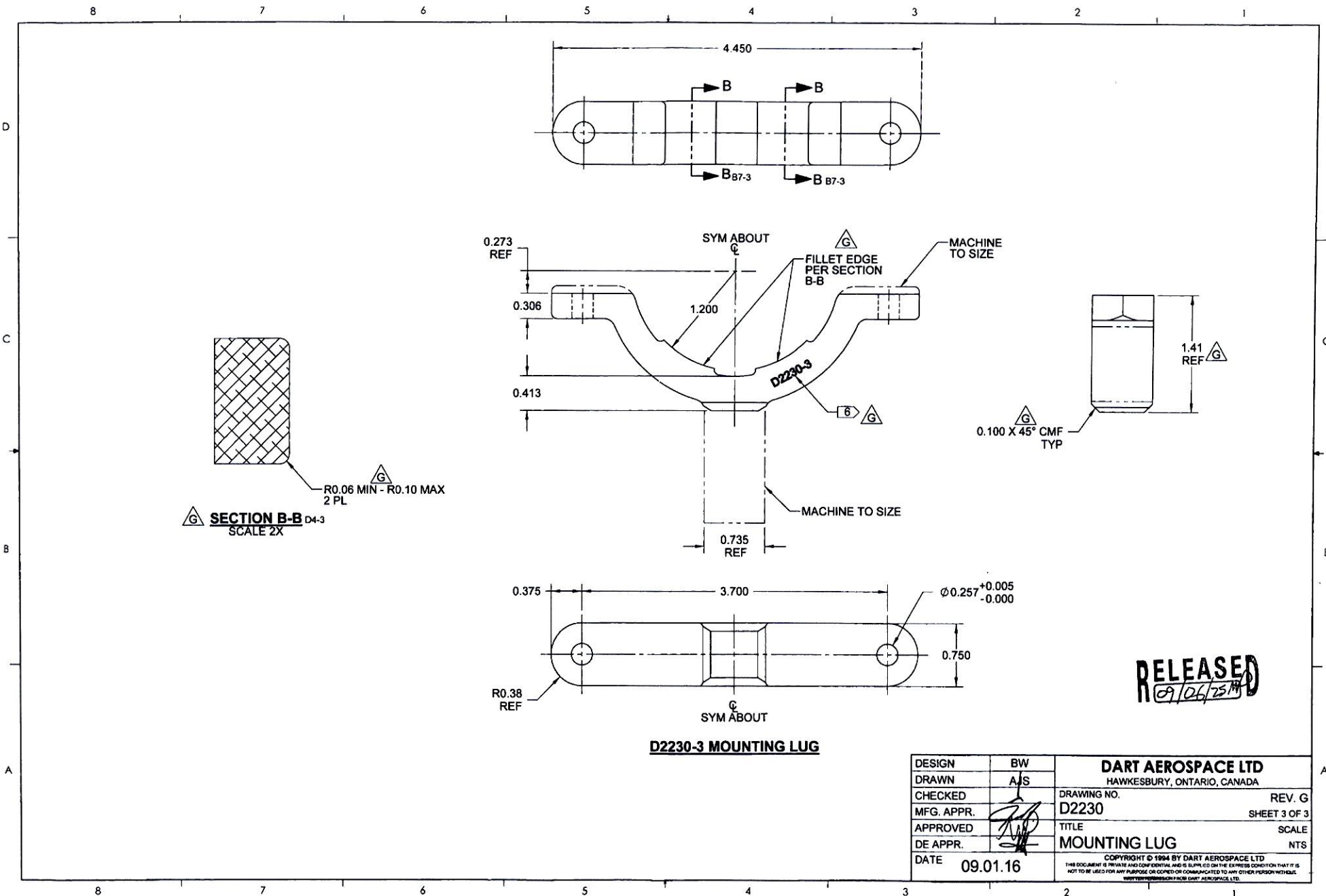


NOTES:

- 1) MATERIAL: MAKE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 ± 0.005 IN THIS LOCATION, WITH TOOL TIP RADIUS OF 0.015 ± 0.005 .
- 7) WEIGHT: -1: 0.16 lbs
-3: 0.14 lbs

G	REDESIGNED IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. REFER TO SECTION A-A & B-B FILLET ADDED TO PREVENT CHAFING OF RUBBER CUSHION ON INSTALLATION.	AJS	09.01.16
F	REDESIGN: R1.200 WAS 1.100	CP	99.12.13
E	RE-DESIGN	BW	95.01.04
D	RE-DESIGN	BW	95.01.04
C	RE-DESIGN	BW	94.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. G
MFG. APPR.	<i>[Signature]</i>	D2230	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	MOUNTING LUG	NTS
DATE	09.01.16	COPYRIGHT © 1994 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	





D2230-3 MOUNTING LUG

DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2230	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
DATE	09.01.16	COPYRIGHT © 1994 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO36680**

Purchase Order Date 6/13/2017

PO Print Date 6/19/2017

Page Number 1 of 4

Order From :

VC-MET003

METEC METAL TECHNOLOGY INC.
207 EASY FOX DRIVE PO BOX 781
VANKLEEK HILL, ON K0B 1R0
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

REVISED

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	613 678 3957	Customer POID	
		Customer Tax #	10127-2607
Ship To Contact		Terms	Net 10
Ship To Phone		Currency	CAD
Ship Via:	Dart Truck	FOB	Destination-Collect
Ship Acct:			

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	D2230-3P	Lug	6/20/2017 Yes 6/20/2017	FN	162.00 Each	\$13.80	\$2,235.60
	AS PER DWG D2230 REV. G B162754 ALODINE AND PAINT AS PER QSI005						
	D2230-3P		7/14/2017 7/14/2017	FN	58.00 Each	\$13.80	\$800.40
						DAS 38 9-89	
Line Total:							\$3,036.00
2	D3235-1P	Lug	6/20/2017 Yes 6/20/2017	FN	50.00 Each	\$15.00	\$750.00
	AS PER DWG D3235 REV. A B162413 ALODINE AND PAINT AS PER QSI005						
Line Total:							\$750.00

Note:

6/19/2017



20 Terry Fox Drive
Vankleek Hill, Ontario K0B 1R0 , Canada
Tel: (613) 678-3957
Fax: (613) 678-3956

Delivery Slip No.: 21746
Date: Jun 20, 2017
Page: 1

Sold to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Ship to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 36680	Sold By: Walz, Christian D.
Shipped By: your truck	Ship Date: Jun 20, 2017

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D2230-3 Mounting Lug alodined and painted as per QSI005 162 stock / 58 ETA July 12, 2017	Each	220	162 ✓	58
D3235-1 Mounting Lug alodined and painted as per QSI005	Each	50	50 ✓	
D3235-1 Mounting Lug alodined and painted as per QSI005	Each	100	100 ✓	
D3394-3 Lug alodined and painted as per QSI005	Each	20	20 ✓	
D3910-1 Crosstube Lug alodined and painted as per QSI005	Each	20	35 ✓	
D3910-3 Crosstube Lug alodined and painted as per QSI005	Each	20	30	
D3910-5 Crosstube Lug alodined and painted as per QSI005	Each	20	20 ✓	
DAS 38 9-89				
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by <u>SP 17-6-26</u>		Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

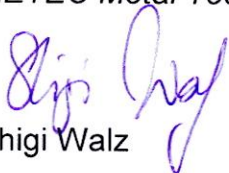
same

Quantity	Part Number	Part Name	Material Batch #	Paint Batch #	P.O. Number
✓ 162	D2230-3	Mounting Lug	148835	21012	36680
50	D3235-1	Mounting Lug	148835	21003	36680
100	D3235-1	Mounting Lug	148835	21003	36680
20	D3394-3	Lug	127892	20100	36680
35	D3910-1	Crosstube Lug	148835	21003	36680
30	D3910-3	Crosstube Lug	148835	21012	36680
20	D3910-5	Crosstube Lug	148835	20715	36680

MATERIAL: supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.


Shigi Walz

Vankleek Hill, June 20, 2017